

IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): An audio signal processing apparatus adapted for delivering an audio signal to a speaker system, comprising:

a frequency dividing filter outputting portions of a signal input thereto as separate frequency components;

at least two drive units which are divided or separated by frequency band receiving the separate frequency components output from the frequency dividing filter;

filter means for processing the input audio signal on the basis of an inverse correction characteristic corresponding to an overall impulse response of the speaker system, the input audio signal being processed to compensate for a shift between phases of respective sound waves radiated from respective drive surfaces of the at least two drive units of the speaker system, the shift being caused by the relative physical locations of the respective drive surfaces.

Claim 2 (Previously Presented): The audio signal processing apparatus as set forth in claim 1, wherein the at least two drive units include a drive unit for reproducing a signal at a high frequency band and a drive unit for reproducing a signal at a low frequency band, and are coaxially disposed with respect to acoustic center.

Claim 3 (Previously Presented): The audio signal processing apparatus as set forth in claim 1, wherein the filter means is an FIR filter.

Claim 4 (Currently Amended): An audio signal processing apparatus adapted for delivering an audio signal to a speaker system, comprising:

a frequency dividing filter outputting portions of a signal input thereto as separate frequency components;

at least two drive units which are divided or separated by frequency band receiving the separate frequency components output from the frequency dividing filter;

first filter means having a predetermined arbitrary transmission characteristic; and

second filter means having an inverse correction characteristic corresponding to an overall impulse response of the speaker system, the input audio signal being processed to compensate for a shift between phases of respective sound waves radiated from respective drive surfaces of the at least two drive units of the speaker system, the shift being caused by the relative physical locations of the respective drive surfaces.

Claim 5 (Previously Presented): The audio signal processing apparatus as set forth in claim 4, wherein the transmission characteristic of the first filter means is a frequency characteristic in which group delay characteristic is constant.

Claim 6 (Previously Presented): The audio signal processing apparatus as set forth in claim 4, wherein the transmission characteristic of the first filter means is a characteristic for conducting a control such that sound image localization position in the case where an input audio signal is reproduced by plural speakers results in an arbitrary position.

Claim 7 (Previously Presented): The audio signal processing apparatus as set forth in claim 4, wherein the transmission characteristic of the first filter means is a impulse response characteristic of an arbitrary room.

Claim 8 (Previously Presented): The audio signal processing apparatus as set forth in claim 4, wherein the transmission characteristic of the first filter means is a impulse response characteristic of an electro-acoustic transducer.

Claim 9 (Previously Presented): The audio signal processing apparatus as set forth in claim 8, wherein the electro-acoustic transducer is a speaker or headphone system.

Claim 10 (Previously Presented): The audio signal processing apparatus as set forth in claim 8, wherein the electro-acoustic transducer is a record needle.

Claim 11 (Previously Presented): The audio signal processing apparatus as set forth in claim 8, wherein the electro-acoustic transducer is a recording/reproducing device.

Claim 12 (Previously Presented): The audio signal processing apparatus as set forth in claim 8, wherein the electro-acoustic transducer is an adding unit.

Claim 13 (Previously Presented): The audio signal processing apparatus as set forth in claim 8, wherein the electro-acoustic transducer is an audio amplifier.

Claim 14 (Previously Presented): The audio signal processing apparatus as set forth in claim 4, wherein the first filter means adds, to the input audio signal, an impulse response characteristic which has been selectively switched among impulse response characteristics of plural kinds of electro-acoustic transducers.

Claim 15 (Previously Presented): The audio signal processing apparatus as set forth in claim 4, wherein the first filter means and the second filter means are FIR filters.

Claim 16 (Currently Amended): An audio signal reproducing system including:
a frequency dividing filter outputting portions of a signal input thereto as separate frequency components;

a speaker system including at least two drive units which are divided or separated by frequency band receiving the separate frequency components output from the frequency dividing filter; and

a signal processing unit comprising filter means for processing the input audio signal on the basis of an inverse correction characteristic corresponding to an overall impulse response of the speaker system the input audio signal being processed to compensate for a shift between phases of respective sound waves radiated from respective drive surfaces of the at least two drive units of the speaker system the shift being caused by the relative physical locations of the respective drive surfaces.

Claim 17 (Currently Amended): An audio signal reproducing system including:
a frequency dividing filter outputting portions of a signal input thereto as separate frequency components;

a speaker system including at least two drive units which are divided or separated by frequency band receiving the separate frequency components output from the frequency dividing filter;

a signal processing unit comprising first filter means having a predetermined, arbitrary transmission characteristic; and second filter means having an inverse correction characteristic corresponding to an overall impulse response of the speaker system, the input

audio signal being processed to compensate for a shift between phases of respective sound waves radiated from respective drive surfaces of the two drive units of the speaker system the shift being caused by the relative physical locations of the respective drive surfaces.